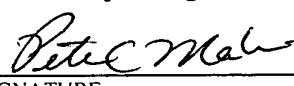


SUBSTITUTE FORM PTO-1390 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE (REV 01-99)		ATTORNEY'S DOCKET NUMBER 1330.012US1
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) UNKNOWN 10/516579
INTERNATIONAL APPLICATION NO. PCT/US2003/017527	INTERNATIONAL FILING DATE 4 June 2003	PRIORITY DATE CLAIMED 4 June 2002
TITLE OF INVENTION : MEMBRANE DEVICES AND DEVICE COMPONENTS		
APPLICANT(S) FOR DO/EO/US : KLOOS, Steven D; ROLCHIGO, Philip M.; KURTH, Christopher J; and KUNG Chia H.		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1). 4. <input type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> A translation of the International Application in to English (35 U.S.C. 371(c)(2)). 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)). a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input checked="" type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An Unsigned oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)) - (4 pgs.) 10. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). Items 11. to 16. below concern document(s) or information included: 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98 (2 pgs.), with Form 1449 (1pg.). 12. <input checked="" type="checkbox"/> An assignment document for recording (4 pgs.). A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included (1 pg.). 13. <input checked="" type="checkbox"/> A FIRST preliminary amendment (13 pages). <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 14. <input type="checkbox"/> A substitute specification (__ pgs), with ____ sheets of original drawings. 15. <input type="checkbox"/> Sequence Listing (__ pgs.); and Sequence Listing in computer readable form (__ diskette). 16. <input checked="" type="checkbox"/> Other items or information: Copy of WO 2003/101575A2 (CORRECTED VERSION) (32 pgs.) Notification of Transmittal of the International Search Report or the Declaration (10 pgs.) Written Opinion (5 pgs.)		
Page 1 of 2		

U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/516579		INTERNATIONAL APPLICATION NO. PCT/US2003/017527		ATTORNEY'S DOCKET NUMBER 1330.012US1	
17. <u>X</u> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1,060.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$900.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$750.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$720.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00 <div style="text-align: right;">ENTER APPROPRIATE BASIC FEE AMOUNT</div>				CALCULATIONS PTO USE ONLY	
Surcharge of \$130.00 for furnishing the oath or declaration later than <u> </u> 20 <u>X</u> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$ 750.00	
				\$ 130.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	73 - 20 =	53	X \$18.00	\$ 954.00	
Independent claims	13 - 3 =	10	X \$88.00	\$ 880.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$290.00	\$	
TOTAL OF ABOVE CALCULATIONS				\$ 2,714.00	
Reduction of ½ for filing by small entity, if applicable.				\$	
SUBTOTAL				\$ 2,714.00	
Processing fee of \$130.00 for furnishing the English translation later than <u> </u> 20 <u> </u> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE				\$ 2,714.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property.				\$ 40.00	
TOTAL FEES				\$ 2,754.00	
				Amount to be:	
				refunded	\$
				charged	\$2,754.00
a. <u>X</u> Please charge Deposit Account No. 19-0743 in the amount of <u>\$40.00</u> to cover the above fee for the Assignment Recordation. b. <u>X</u> Authorization to charge to Deposit Account No. 19-0743 in the amount of <u>\$2,714.00</u> to cover the above fee for the filing fee. A duplicate copy of this sheet is enclosed. c. <u>X</u> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>19-0743</u> . A duplicate copy of this sheet is enclosed. NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status. SEND ALL CORRESPONDENCE TO: SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O.Box 2938 Minneapolis, MN 55402					
				 SIGNATURE Peter C. Maki NAME 42,832 REGISTRATION NUMBER	

10/516579

DT Rec'd PCT/PTO 02 DEC 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Steven D. Kloos, et al.

Title: MEMBRANE DEVICES AND DEVICE COMPONENTS

Attorney Docket No.: 1330.012US1

PATENT APPLICATION TRANSMITTAL

MS PCT

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items and information (as indicated with an "X"):

- ☒ Return postcard.
- ☒ A Transmittal Letter to the DO/EO/US (and duplicate copy thereof) concerning a *PCT - U.S. National Stage filing under 35 U.S.C. 371*.
- ☒ Copy of: International Application PCT/US2003/017527 as published (WO 2003/101575 A2) (32 pgs, including 73 claims and 2 sheets of Formal Drawings)
- ☒ Unsigned Combined Declaration and Power of Attorney (4 pgs).
- ☒ Incorporation by Reference: *The entire disclosures of the prior applications, PCT/US2003/017527, published as (WO 2003/101575 A2 and 60/386,032 filed June 4, 2002, are considered as being part of the disclosure of the accompanying application and are hereby incorporated by reference therein.*
- ☒ Please charge Deposit Account No. 19-0743 in the amount of \$2,714.00 for payment of the filing fee.
- ☒ Information Disclosure Statement (2 pgs); PTO 1449 (1 pg.); Reference not enclosed.
- ☒ Assignment document (4 pgs.); Recordation form Cover Sheet (1 pg.)
- ☒ Please charge Deposit Account No. 19-0743 in the amount of \$40.00 for the recordation fee.
- ☒ Preliminary Amendment (13 pgs.)
- ☒ Notification of Transmittal of the International Search Report or the Declaration (10 pgs.)
- ☒ Written Opinion (5 pgs.)

The Commissioner is authorized to charge the filing fee and any other fees which may be due, or to credit overpayments, to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)

By: Peter C. Maki
Atty: Peter C. Maki
Reg. No.: 42,832

Customer Number 21186"Express Mail" mailing label number: EV 496 164 707 USDate of Deposit: December 2, 2004

This paper or fee is being deposited on the date indicated above with the United States Postal Service pursuant to 37 CFR 1.10, and is addressed to:
MS PCT, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article," "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended ?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Preliminary Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When ? Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments ?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How ? Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments ?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

10/516579

DT05 Rec'd PCT/PTO 02 DEC 2003
RECORDING SHEET

UNITED STATES RECEIVING OFFICE (RO/US) FEE CODING RECORDING SHEET

IDENTIFICATION OF THE INTERNATIONAL APPLICATION

INTERNATIONAL APPLICATION NUMBER

PCT/US03/17527

INTERNATIONAL FILING DATE

04 JUNE 2003 (4-6-03)

APPLICANT (Name)

OSMONICS INC.

PAYMENTS

REFUNDS

Payment on Filing				Deposit Account	Deposit Account	To Deposit Account	To Deposit Account
				04/0470			
DATE:				DATE:	DATE:	DATE:	DATE:
28 JUNE 03							
<input type="checkbox"/> CASH/CHECK				<input type="checkbox"/> CASH/CHECK	<input type="checkbox"/> CASH/CHECK	<input type="checkbox"/> BY CHECK	<input type="checkbox"/> BY CHECK
160				1604	420.00		
161							
163							
892							
Total Paid:				Total Paid:	Total Paid:	Total Refunded:	Total Refunded:
				420.00			
States included for 892:				892:	892:		
States included for 893:				893:	893:		

Date Mailed:

RO/US Authorization

RO/US Authorization

RO/US Authorization

RO/US Authorization

RO/US Authorization

CHAPTER I
PCT TELEPHONE MEMORANDUM
FOR
LACK OF UNITY OF INVENTION



PCT No.: PCT/US03/17527

Examiner: Krishnan S Menon

Attorney spoken to: Catherine Winter

Date of call: 28 June 2004

- ☒ Amount of payment approved: \$420.00
- ☒ Deposit account number to be charged: 09-0470
- ☒ Attorney elected to pay for ALL additional inventions
- ☐ Attorney elected to pay only for the additional inventions covered by
- ☐ Group(s):
- encompassing --
- ☐ Claim(s):
- ☐ Attorney elected NOT to pay for any additional inventions, therefore, only the first claimed invention (Group I) covered by Claim(s) _____ has been searched.
- ☒ Attorney was orally advised that there is no right to protest for any group not paid for.
- ☒ Attorney was orally advised that any protest must be filed no later than 15 days from the mailing of the Search Report (PCT/ISA/210).

Time Limit For Filing A Protest

Applicant is hereby given 15 days from the mailing date of this Search Report in which to file a protest of the holding of lack of unity of invention. In accordance with PCT Rule 40.2, applicant may protest the holding of lack of unity only with respect to the group(s) paid for.

Detailed Reasons For Holding Lack of Unity of Invention:

Please See Continuation Sheet

Note: A copy of this form must be attached to the Search Report.

**ATTACHMENT TO CHAPTER I PCT TELEPHONE MEMORANDUM
FOR
LACK OF UNITY OF INVENTION**

Continuation of Detailed Reasons For Holding Lack of Unity of Invention:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-38 and 48-73, drawn to membrane device.

Group II, claim(s) 39-42, 46 and 47, drawn to home reverse osmosis.

Group III, claim(s) 43-45, drawn to tankless reverse osmosis.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The special technical feature of claim 1, a spiral wound element, which is shown by the prior art US 4,802,982 A (LIEN), a Y reference, to lack novelty or inventive step and thus does not define a contribution over the prior art.

Note: A copy of this form must be attached to the Search Report.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the *PCT Applicant's Guide*, Volume II.